

Message

From: Bird, Patrick [/O=EXCHANGELABS/OU=EXCHANGE ADMINISTRATIVE GROUP (FYDIBOHF23SPDLT)/CN=RECIPIENTS/CN=8376934BF605424D8E870C10744090EC-BIRD, PATRICK]
Sent: 11/23/2021 5:32:55 PM
To: Kipka, Undine [kipka.undine@epa.gov]
Subject: FW: WRF Met Data for Offshore Wind

FYI, too

From: McAlpine, Jerrold <McAlpine.Jay@epa.gov>
Sent: Tuesday, November 23, 2021 12:21 PM
To: Bird, Patrick <Bird.Patrick@epa.gov>; Howard, Chris <Howard.Chris@epa.gov>
Cc: Wortman, Eric <Wortman.Eric@epa.gov>
Subject: RE: WRF Met Data for Offshore Wind

Sure ... and I'll just add some notes here as a preview and for Chris:

- 1) Overland data not in SFC and PFL format question:
 - The 2013-2015 WRF-MMIF dataset had been specially prepared by a contractor to provide finalized PFL and SFC outputs for each and every WRF grid point for the 12km CONUS run. I do not believe this same effort has yet been done for the 2018-2020 run.
 - The 2018-2020 WRF-MMIF extracts were taken directly from the WRF dataset at the WRF grid point nearest to each station are in a format ready for AERMET. The applicant can run AERMET to produce the SFC and PFL files, if they wish to have the data in that format.
- 2) The EPA offered to provide WRF-MMIF extracts from the 2018-2020 CONUS WRF dataset. The observation datasets at the selected sites are in the public domain and readily available from NOAA. We can help point to online locations of these datasets, if needed.



Jay McAlpine, Ph.D.
Atmospheric Scientist, Regional Air Modeling Contact
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Division of Air and Radiation | U.S. EPA, Region 10, Seattle, WA

From: Bird, Patrick <Bird.Patrick@epa.gov>
Sent: Tuesday, November 23, 2021 4:07 AM
To: McAlpine, Jerrold <McAlpine.Jay@epa.gov>; Howard, Chris <Howard.Chris@epa.gov>
Cc: Wortman, Eric <Wortman.Eric@epa.gov>
Subject: FW: WRF Met Data for Offshore Wind

Hi Jay and Chris,

Hope you both are doing well. See the incoming message from Katherine Mears. Could we touch base on this at our check in meeting today?

(I'm seeing Chris is out till next week, but it's still worth discussing).

Thanks,

Pat

From: Katherine Mears <kmears@techenv.com>
Sent: Monday, November 22, 2021 4:05 PM
To: Bird, Patrick <Bird.Patrick@epa.gov>
Cc: Marc Wallace <MWallace@techenv.com>
Subject: RE: WRF Met Data for Offshore Wind

Hi Pat,

Following up with you after sorting through the files that were shared with us from Jerrold McAlpine on 11/12. I noticed that for the overland met data, which were extracted via MMIF using the AERMET output option, the data does not include the .SFC and .PFL files. When the prognostic overland files were provided to us for years 2013-2015 they included the .SFC and .PFL files. Is there a reason that these files are not provided for 2018-2020 overland met data?

Also, we have not received the observed met data for the Buzzards Bay buoy, the KMOV surface station and the Chatham upper air station, which we will need to perform the met data comparison study. Does EPA plan to provide the observed met data to us, or should we download and process the data in-house?

Thank you,

Katherine Mears
Atmospheric Scientist

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From: Katherine Mears
Sent: Friday, November 19, 2021 7:50 AM
To: Bird, Patrick <Bird.Patrick@epa.gov>
Subject: Re: WRF Met Data for Offshore Wind

Hi Pat,

We haven't finished processing it yet, but it all looks good so far. Thank you for checking in.

Katherine

On Nov 18, 2021, at 4:01 PM, Bird, Patrick <Bird.Patrick@epa.gov> wrote:

Hi Katherine,

Just checking in to make sure what we provided you was accessible and you have what you need to move forward.

Thanks,

Pat

From: Katherine Mears <kmears@techenv.com>

Sent: Friday, November 12, 2021 11:29 AM

To: Bird, Patrick <Bird.Patrick@epa.gov>

Cc: Biton, Leiran <biton.leiran@epa.gov>; Howard, Chris <Howard.Chris@epa.gov>; Monteith, Richard <Monteith.Richard@epa.gov>; Friedman, Adam <Friedman.Adam@epa.gov>; Marc Wallace <MWallace@techenv.com>

Subject: RE: WRF Met Data for Offshore Wind

Hi Pat,

Are you able to provide an update on the requested met data?

Thank you,

Katherine Mears

Atmospheric Scientist

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From: Bird, Patrick [<mailto:Bird.Patrick@epa.gov>]

Sent: Monday, October 18, 2021 7:21 AM

To: Katherine Mears <kmears@techenv.com>

Cc: Biton, Leiran <biton.leiran@epa.gov>; Howard, Chris <Howard.Chris@epa.gov>; Monteith, Richard <Monteith.Richard@epa.gov>; Friedman, Adam <Friedman.Adam@epa.gov>; Marc Wallace <MWallace@techenv.com>

Subject: RE: WRF Met Data for Offshore Wind

Hi Katherine,

We will work to provide you with the 2018-2020 WRF data for these coordinates, and I'm fairly certain we have data from the buoy and stations you referenced which we recently provided to another developer. Let me check on that, and I'll follow up.

Thanks,

Pat

From: Katherine Mears <kmears@techenv.com>

Sent: Thursday, October 14, 2021 12:47 PM

To: Bird, Patrick <Bird.Patrick@epa.gov>

Cc: Biton, Leiran <biton.leiran@epa.gov>; Howard, Chris <Howard.Chris@epa.gov>; Monteith, Richard

<Monteith.Richard@epa.gov>; Friedman, Adam <Friedman.Adam@epa.gov>; Marc Wallace
<MWallace@techenv.com>

Subject: RE: WRF Met Data for Offshore Wind

Hi Pat,

Thank you for the feedback. Can you please provide the 2018-2020 WRF data? The project centroid has a Lat/Lon of 41.153/-71.073. For overland data, we previously used an extraction point of 41.393/-70.615, which corresponds to the Martha's Vineyard airport.

Regarding the observed met data to be used in the evaluation, does EPA have processed data for the Buzzards Bay buoy, the KMOV surface station and the Chatham upper air station that we should use, or should we process the met data ourselves?

Thank you,

Katherine Mears

Atmospheric Scientist

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From: Bird, Patrick [<mailto:Bird.Patrick@epa.gov>]

Sent: Thursday, October 14, 2021 9:46 AM

To: Katherine Mears <kmears@techenv.com>

Cc: Biton, Leiran <biton.leiran@epa.gov>; Howard, Chris <Howard.Chris@epa.gov>; Monteith, Richard <Monteith.Richard@epa.gov>; Friedman, Adam <Friedman.Adam@epa.gov>

Subject: RE: WRF Met Data for Offshore Wind

Hi Katherine,

Thanks for reaching out to us with your questions regarding air dispersion modeling for the Revolution Wind project and your patience in our response.

We recommend the use of more recent WRF data (2018-20) as opposed to the older 2013-15 data which the South Fork wind project used. This will ensure the model is accounting for any variations in observations which may present themselves between the 2013-15 and 2018-20 time periods. Use of the more recent WRF data would necessitate an updated prognostic model evaluation as described Section 8.4.5.2 of 40 CFR Appendix W, The Guideline on Air Quality Models.

Don't hesitate to let us know if you have additional questions or wish to discuss this issue further.

Thanks,

Pat

Patrick Bird
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5 Post Office Square, 05-2
Boston, MA 02109
p: 617-918-1287
e: bird.patrick@epa.gov

From: Katherine Mears <kmears@techenv.com>

Sent: Monday, October 4, 2021 12:12 PM

To: Biton, Leiran <biton.leiran@epa.gov>

Subject: WRF Met Data for Offshore Wind

Hi Leiran,

We spoke a few weeks back about using more recent prognostic met data. I wanted to remind you of our much earlier discussions on the South Fork prognostic met data comparison study that Revolution Wind planned to use in our protocol/application. Will using the more recent met data prevent us from being able to use the South Fork study? I know you are on your detail now, so please feel free to let me know who I should reach out to about this.

Thank you,

Katherine Mears
Atmospheric Scientist

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